

# CPC COOPERATIVE PATENT CLASSIFICATION

## F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

### ENGINEERING IN GENERAL

#### F16 ENGINEERING ELEMENTS AND UNITS; GENERAL MEASURES FOR PRODUCING AND MAINTAINING EFFECTIVE FUNCTIONING OF MACHINES OR INSTALLATIONS; THERMAL INSULATION IN GENERAL

#### F16P SAFETY DEVICES IN GENERAL; {SAFETY DEVICES FOR PRESSES}

##### NOTE

Attention is drawn to the following places:

<a href="#">A01D 75/18</a>	Harvesting machines
<a href="#">A01F 21/00</a>	Threshing machines or baling presses
<a href="#">B02C 23/04</a>	Crushing or disintegrating machines
<a href="#">B21B 33/00</a>	Rolling of metal
<a href="#">B21D 55/00</a>	Working sheet metal or tubes, rods or profiles without essentially removing material
<a href="#">B23B 25/04</a>	Turning-machines
<a href="#">B23Q 11/00</a>	Machine tools
<a href="#">B24B 55/00</a>	Grinding or polishing machines
<a href="#">B25J 19/06</a>	Manipulators
<a href="#">B26D 7/22</a>	Cutting machines
<a href="#">B27G 19/00</a>	Wood saws
<a href="#">B65B 57/00</a>	Packaging machines or apparatus
<a href="#">B65G 43/00</a>	Conveyors
<a href="#">B65H 26/00</a>	Web-advancing mechanisms
<a href="#">B65H 63/00</a>	Handling or winding of thin or filamentary material
<a href="#">D01G 31/00</a>	Treatment of fibres
<a href="#">D01H 13/14</a>	Spinning or twisting
<a href="#">D05B 83/00</a>	Sewing machines
<a href="#">F21V 25/00</a>	Lighting devices.

#### Devices protecting or preventing injuries to people

<b>1/00</b>	<b>Safety devices independent of the control and operation of any machine (protective devices for the eyes or ears, worn on the body or carried in the hand, <a href="#">A61F 9/00</a>, <a href="#">A61F 11/00</a>)</b>	3/006	. . {having a screen moving with the machine and moving the operator out of danger, or restraining the operator, without influencing the switching system}
1/005	. {Guards for rolls in calendering or other roll machines, e.g. nip guards, finger guards}	3/008	. {Devices for directly stopping or interrupting the drive or gear in case of danger to the machine, e.g. devices with clutches}
1/02	. Fixed screens or hoods	3/02	. Screens or other safety members moving in synchronism with members which move to and fro
1/04	. Screens or hoods rotating with rotary shafts	3/04	. . for machines with parts which approach one another during operation, e.g. for stamping presses
1/06	. specially designed for welding	3/06	. . . in which body parts of the operator are removed from the danger zone on approach of the machine parts
<b>3/00</b>	<b>Safety devices acting in conjunction with the control or operation of a machine; Control arrangements requiring the simultaneous use of two or more parts of the body (<a href="#">F16P 5/00</a> takes precedence)</b>	3/08	. in connection with the locking of doors, covers, guards, or like members giving access to moving machine parts
3/001	. {Safety devices for guarding the human operator of punch presses or like machine tools performing an opening and closing travel}	3/10	. . in which the operation of locking the door or other member causes the machine to start
3/003	. . {by application of a specific control arrangement, e.g. specific switching systems or two-hand control}	3/12	. with means, e.g. feelers, which in case of the presence of a body part of a person in or near the danger zone influence the control or operation of the machine ( <a href="#">F16P 3/08</a> takes precedence)
3/005	. . {having a movable screen or a sensor influencing the switching system}	3/125	. . {Guards for rolls in calendering or other roll machines, e.g. nip guards, finger guards}

- 3/14 . . the means being photocells or other devices sensitive without mechanical contact
- 3/141 . . . {using sound propagation, e.g. sonar}
- 3/142 . . . {using image capturing devices}
- 3/144 . . . {using light grids}
- 3/145 . . . {using magnetic technology}
- 3/147 . . . {using electro-magnetic technology, e.g. tags or radar}
- 3/148 . . . {using capacitive technology}
- 3/16 . . with feeling members moved by the machine
- 3/18 . Control arrangements requiring the use of both hands
- 3/20 . . for electric control systems
- 3/22 . . for hydraulic or pneumatic control systems
- 3/24 . . for mechanical controls
- 5/00** **Emergency means for rendering ineffective a coupling conveying reciprocating movement if the motion of the driven part is prematurely resisted**
- 5/005 . {Overload protection by energy absorbing components, e.g. breaker blocks, shear sections}
- 7/00** **Emergency devices preventing damage to a machine or apparatus ([F16P 1/00](#), [F16P 3/00](#), [F16P 5/00](#) take precedence; indicating means, see the appropriate classes)**
- 7/02 . by causing the machine to stop on the occurrence of dangerous conditions therein (devices in bearings affected by abnormal conditions [F16C](#))